WORKFLOW MODELING USING AN ACYCLIC DIRECTED GRAPH DATA STRUCTURE

ABSTRACT OF THE INVENTION

A process for modeling at least a portion of a workflow includes accessing a computer data structure to represent an acyclic directed graph (10) including multiple nodes (12) and one or more edges (14), each edge (14) linking two adjacent nodes (12). The value of a function at a selected node (12) is requested, the value of the function at the selected node (12) depending on values of the function at one or more adjacent nodes (12) lying in a first direction from the selected node (12). If a cached value of the function at the selected node (12) is not assured to be valid, then the value of the function at the selected node (12) is recomputed based on the values of the function at the one or more adjacent nodes (12) and then returned. If the cached value is assured to be valid, then the cached value is returned without recomputing the value of the function at the selected node (12).